What we claim is:

Claim 1. A method for diagnosing microscopic contaminants at remote locations by capturing photomicrographs of the contaminants using a digital camera and transmitting said photomicrographs over electronic communication systems to certified personnel for analysis of the contaminants, wherein

the contaminants are illuminated with a high intensity light source and wherein a high resolution lens magnification system is positioned between the camera and the contaminants.

Claim 2. The method of claim 1 wherein the microscopic contaminants are fungal spores and the photomicrographs are taken on a glass slide of the spores from an air-sampling mechanism, from a swab sample, a adhesive tape lift sample, or the like.

Claim 3. The method of claim 1 wherein the microscopic contaminants are molds and the photomicrographs of the molds are captured directly in the natural environment of the contaminants without including the use of microscopic slides.

Claim 4. The method of claim 3 wherein the photomicrographs are captured directly on pieces of carpet or ceiling tile or cotton swabs without including the use of microscopic slides.

Claim 5. The method of claim 1 wherein the light source has a focal plane and said focal plane and lens magnification system are hand-held by an operator at a distance about 0.5 to 1.5 inches from the microscopic contaminants to be identified.

Claim 6. The method of claim 1 wherein the digital camera, light source and lens magnification system are operated by battery power and are transported by a remote-controlled vehicle into air ducts or beneath building structures.

Claim 7. The method of claim 1 wherein the lens magnification system comprises a glass pickup lens, a 2x power television tube, a 2x power auxiliary lens and a zoom lens in combination, the combination not including an eyepiece focussing lens.

Claim 8. The method of claim 1 wherein the digital camera has a image capture resolution of at least about 400,000 pixels by 800,000 pixels.

Claim 9. The method of claim 1 wherein the light source comprises at least one high intensity light bulb.

Claim 10. The method of claim 9 wherein the light source has a focal plane and the focal plane of said at least one high intensity light bulb is coincident with the object being viewed when the lens magnification system is positioned a distance from about 0.5 to 1.5 inches from the object.

Claim 11. The method of claim 9 wherein the at least one high intensity light bulb is positioned above or beneath the object being viewed.

Claim 12. The method of claim 11 further comprising a reflecting mirror proximate the bulb.

Claim 13. The method of claim 1 wherein a colored filter is positioned between contaminants being viewed and the light source and the photomicrographs of the contaminants are taken on a glass slide without staining the contaminants.

Claim 14. The method of claim 13 wherein the light source comprises at least one high intensity xenon light bulb located above or beneath the object being viewed.

Claim 15. An apparatus for diagnosing microscopic contaminants at remote locations comprising:

a digital camera for capturing photomicrographs of the contaminants;

an Internet based electronic link for transmitting said photomicrographs to certified personnel for analysis of the contaminants;

a high intensity illumination light source; and,

a high resolution lens magnification system interposed between the camera and the contaminants.

Claim 16. The apparatus of claim 15 wherein the light source has a focal plane and said focal plane, and lens magnification system are hand-held by an operator a distance of about 0.5 to 1.5 inches from the microscopic contaminants to be identified.

Claim 17. The apparatus of claim 15 wherein the digital camera, light source and lens magnification system are operated by battery power and are transported by a remote-controlled vehicle into air ducts or beneath building structures.

Claim 18. The apparatus of claim 15 wherein the lens magnification system comprises the combination of a glass pickup lens, a 2x power television tube, a 2x power auxiliary lens and a zoom lens, the combination not including an eyepiece focussing lens.

Claim 19. The apparatus of claim 15 wherein the digital camera has a image capture resolution of at least about 400,000 pixels by 800,000 pixels.

Claim 20. The apparatus of claim 15 wherein the light source comprises at least one high intensity xenon light bulb located above or below the object being viewed.

Claim 21. The apparatus of claim 20 wherein the light source has a focal plane and said focal plane of said at least one high intensity xenon light bulb is coincident with the object being viewed when the lens magnification system is positioned at a distance from about 0.5 to 1.5 from the object.

Claim 22. The apparatus of claim 21 wherein the at least one high intensity xenon light bulb has a reflecting mirror surrounding the bulb and the bulb is mounted in a recessed bore proximate the circumference of and inclined at an angle relative to a planar ring.

Claim 23. The apparatus of claim 15 further comprising a colored filter positioned between contaminants being viewed and the light source and the photomicrographs of the contaminants are taken on a glass slide without staining the contaminants.

Claim 24. The method of claim 23 wherein the light source comprises at least one and no more than three high intensity xenon light bulbs located above or beneath the object being viewed.

Claim 25. An apparatus for capturing photomicrographs of microscopic contaminants comprising:

a digital camera;

a high intensity illumination light source; and,

a high resolution lens magnification system interposed between the camera and the contaminants, wherein a high resolution lens magnification system is positioned between the camera and the contaminants.

Claim 26. The apparatus of claim 25 wherein the light source has a focal plane and said focal plane and the lens magnification system are both positioned a distance from about 0.5 to 1.5 inches from the microscopic contaminants.

Claim 27. The apparatus of claim 25 wherein the digital camera, light source and lens magnification system are operated by battery power.

Claim 28. The apparatus of claim 25 wherein the lens magnification system comprises the combination of a 2X glass pickup lens, a 2x power television tube, a 2x power auxiliary lens and a zoom lens, the combination not including an eyepiece focussing lens.

Claim 29. The apparatus of claim 25 wherein the light source comprises at least one high intensity xenon light bulb located above or below the object being viewed.

Claim 30. The apparatus of claim 28 wherein the light bulb has a focal plane and the focal plane of said at least one light bulb is on the object being viewed when the lens magnification system is positioned at a distance from about 0.5 to 1.5 from the object.

Claim 31. The apparatus of claim 25 further comprising a colored filter is positioned between contaminants being viewed and the light source and the photomicrographs of the contaminants are taken on a glass slide without staining the contaminants.

Claim 32. The apparatus of claim 25 wherein the light source comprises at least one high intensity xenon light bulb located above or beneath the object being viewed.

Claim 33. An optics system for capturing photomicrographs of microscopic contaminants, the system comprising the combination of a glass pickup lens, a 2x power television tube, a 2x power auxiliary lens and a zoom lens, the combination not including a focussing lens.

Claim 34. The optics system of claim 33 wherein the combination of lens are positioned a distance from about 0.5 to 1.5 from the microscopic contaminants being viewed.

Claim 35. The optics system of claim 33 further comprising a high intensity illumination light source.

Claim 36. The optics system of claim 35 wherein the light source has a focal plane and said focal plane is positioned a distance from about 0.5 to 1.5 inches from the microscopic contaminants.

Claim 37. The optics system of claim 35 wherein the light source comprises at least one high intensity xenon light bulb located above or below the object being viewed.

Claim 38. The optics system of claim 36 wherein the light source comprises at least one high intensity xenon light bulb located above or below the object being viewed.

Claim 39. The optics system of claim 35 wherein a colored filter is positioned between contaminants being viewed and the light source and the photomicrographs of the contaminants are taken on a glass slide without staining the contaminants.

Claim 40. The optics system of claim 39 wherein the light source comprises at least one high intensity xenon light bulb located above or beneath the object being viewed.